

Docket 53602-6

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Re:

Applicant: PISONY, Murray Walter

Group Art Unit: 3652

Serial No.: 11/160,060

Examiner: ADAMS, Gregory W

Filed: 06/07/2005

For: ALL TERRAIN LUMBER COLLECTION AND STACKING APPARATUS

Honourable Commissioner of Patents  
and Trademarks,  
Washington, D.C. 20231,  
U.S.A.

Sir:

**AMENDMENT**

In response to the office action of June 9, 2008, applicants submit along with a RCE and a request for extension of time, the following amendments and remarks:

In the Claims:

Following from applicants last submission, amend claims 1, 6 and 9, cancel claims 5 and 10 to 22 and add new claims 25 to 41 such that the claim set reads as follows:

1. (currently amended) An apparatus for picking up, stacking and bundling lumber, comprising:

(a) a drive means,

(b) a conveyor assembly that comprises a receiving bin and a conveyor,

(c) a stacking assembly operatively connected to the conveyor assembly, and that comprises an unscrambling hopper, a row conveyor, a stacking bin and a bundling assembly

(d) a discharge platform,

(e) a storage area connected alongside the stacking assembly and sized to accommodate and carry on the apparatus several bundles of lumber in side by side relation, and

(f) a grapple assembly including an arm extending upwardly from the apparatus and a grapple on an outboard end of the arm, the grapple including at least two fingers sized and connected by a pivotal connection such that the fingers can be opened and closed to pick up lumber pieces therebetween and the arm being pivotally moveable to deposit the lumber pieces into the receiving bin and to move a bundle of lumber between the discharge platform and the storage area.

2. (cancelled)

3. (original) The apparatus of claim 1, wherein the drive means is a vehicle and the grapple assembly is mounted to the vehicle.

4. (original) The apparatus of claim 3, wherein the conveyor assembly, stacking assembly and discharge platform are on a trailer that is pulled by the vehicle.

5. (cancelled)
6. (currently amended) The apparatus of claim 4 ~~further comprising a~~ wherein the storage area is positioned on the trailer.
7. (original) The apparatus of claim 1 further comprising a means of raising and lowering the conveyor assembly.
8. (previously presented) The apparatus of claim 1 further comprising a pivoting arrangement for tilting the stacking assembly relative to a chassis of the apparatus to provide for substantial leveling of the stacking assembly when operating on uneven ground surfaces.
9. (currently amended) A method of picking up, stacking and bundling lumber, comprising:
  - (a) providing an apparatus that comprises:
    - (i) a conveyor assembly that comprises a receiving bin and a conveyor;
    - (ii) a stacking assembly operatively connected to the conveyor assembly, and that comprises an unscrambling hopper, a row conveyor, a stacking bin and a bundling assembly;
    - (iii) a discharge platform,
    - (iv) a storage area provided on the apparatus, the storage area having a planar upper surface sized to accommodate a bundle of lumber thereon; and
    - (v) ~~(vi)~~ a grapple assembly including an arm extending upwardly from the apparatus and a grapple on an outboard end of the arm, the grapple including at least two fingers connected by a pivotal connection such that the fingers can be opened and closed to grip a piece of lumber between the fingers,
  - (b) picking up loose lumber with the grapple and moving the grapple with the arm to deposit the loose lumber into the receiving bin, ~~and~~

(c) conveying the loose lumber along the conveyor to the stacking assembly, where the lumber is stacked and bundled into a bundle of lumber and deposited onto the discharge platform,

(d) operating the grapple to pick up the bundle of lumber from the discharge platform and to transfer the bundle of lumber to the storage area, and

(e) moving the apparatus over ground terrain with the bundle of lumber stored on the storage area.

10. – 22. (cancelled)

23. (previously presented) The apparatus of claim 1 wherein the arm is pivotally mounted to rotate about a substantially vertical axis on the apparatus about 360 degrees.

24. (previously presented) The apparatus of claim 1 wherein the arm includes a first length including a first end mounted for lateral extension from the apparatus and an opposite end and a second length pivotally connected to the opposite end for further lateral reach by the arm, the second length defining the outboard end to which the grapple is connected.

25. (new) The apparatus of claim 1 wherein the drive means is integral with a frame carrying the conveyor assembly.

26. (new) An apparatus for picking up, stacking and bundling lumber, comprising:

(a) a chassis,

(b) a grapple carried with the chassis,

(c) a conveyor assembly supported on the chassis,

(d) a stacking assembly operatively connected adjacent the conveyor assembly, the stacking assembly including an unscrambling hopper, a row conveyor, a stacking bin and a bundling assembly, and,



(e) a discharge platform operatively connected adjacent the bundling assembly,

wherein the conveyor assembly includes a frame, a pivotal connection for the frame to permit angular adjustment of the frame relative to the chassis, an extendible mast connected between the frame and the chassis to drive the frame about the pivotal connection and a receiving bin and a conveyor carried on the frame, the conveyor positioned between the receiving bin and the stacking assembly and being operable to move lumber from the receiving bin to the stacking assembly and the mast being operable to drive adjustment of the angle of the frame relative to the chassis to select the approach angle for the conveyor relative to the stacking assembly.

27. (new) The apparatus of claim 26 wherein the mast drives the frame adjacent the receiving bin to select a spacing between the frame and the chassis.

28. (new) The apparatus of claim 26 wherein the pivotal connection connects between the frame and the stacking assembly.

29. (new) The apparatus of claim 26 wherein the stacking assembly further includes a pivoting arrangement for tilting the stacking assembly relative to the chassis to provide for substantial leveling of the stacking assembly when operating on uneven ground surfaces.

30. (new) The apparatus of claim 26 further comprising a pivot point on the mast through which the mast can be pivoted down over the frame to an inactive position for transport.

31. (new) The apparatus of claim 26 wherein the mast includes a hydraulic cylinder drivable to telescope to various lengths.

32. (new) The apparatus of claim 26 wherein the mast includes an inner mast and an outer mast, the inner mast being mounted to the chassis to extend substantially perpendicularly upwardly therefrom, the outer mast being pivotally connected to the inner mast and being pivotally connected to the frame, at least one of the inner mast

and the outer mast having an adjustable length to move the frame to a selected height relative to the chassis to select the spacing therebetween.

33. (new) An apparatus for picking up, stacking and bundling lumber, comprising:

- (a) a chassis,
- (b) a grapple carried with the chassis,
- (c) a conveyor assembly supported on the chassis,
- (d) a stacking assembly operatively connected adjacent the conveyor assembly, the stacking assembly including an unscrambling hopper, a row conveyor, a stacking bin and a bundling assembly, and,
- (d) a discharge platform operatively connected adjacent the bundling assembly,

wherein the unscrambling hopper includes a front wall adjacent the conveyor assembly, a back wall opposite the front wall, a first side wall extending between the front wall and the back wall along which a lumber elevating assembly operates, a second side wall extending between the front wall and the back wall and spaced from the first side wall, a bottom, an adjustable front panel positioned adjacent the front wall in an open space defined between the front wall and the back wall and moveable towards and away from the front wall to adjust the length of the open space and an adjustable back panel positioned adjacent the back wall in the open space and moveable towards and away from the back wall to adjust the length of the open space.

34. (new) The apparatus of claim 33 wherein the adjustable back panel is moveable to tilt from side to side and from top to bottom.

35. (new) The apparatus of claim 34 wherein the adjustable back panel is positionable to be closer at its bottom edge to the back wall than at its upper edge and closer to the back wall at a first side edge adjacent the first side wall than at its opposite side edge.

36. (new) The apparatus of claim 33 wherein the unscrambling hopper further includes a latching mechanism through which the bottom is openable for cleaning debris from the unscrambling hopper.
37. (new) The apparatus of claim 33 wherein the bottom includes a plurality of rollers driveable to rotate in a direction toward the back wall.
38. (new) The apparatus of claim 33 further comprising openings between the rollers.
39. (new) The method of claim 9 wherein after transferring the bundle of lumber to the storage area, the method further comprises operating the apparatus to create a second bundle of lumber on the discharge platform.
40. (new) The method of claim 39 further comprising operating the grapple to move the second bundle of lumber to the storage area.
41. (new) The method of claim 9 further comprising operating the grapple to remove the bundle of lumber from the storage area and to move the bundle of lumber to a secondary location.



**REMARKS**Claim Rejections – 35 USC § 103

Claims 1 and 3 to 24 were rejected under 35 USC § 103(a) as being unpatentable over McLeod et al. in view of Dika, US Patent 4,947,904. The claims have been amended to clarify their meaning and such that they now patentably distinguish over the cited references.

Claim 1 has been amended to define a storage area sized to accommodate and carry on the apparatus several bundles of lumber in side by side relation and to further define the arm as being moveable to move a bundle of lumber between the discharge platform and the storage area. Likewise, claim 9 has been amended to define a method wherein an apparatus is provided that includes a storage area and the further steps of operating the grapple to pick up the bundle of lumber from the discharge platform and to transfer the bundle of lumber to the storage area and moving the apparatus over ground terrain with the bundle of lumber stored on the storage area. These features allow the present apparatus to more quickly handle stacks of lumber and facilitate the overall process of lumber recovery, as the amount of required equipment is reduced and wasteful process steps of depositing to, and picking up, stacks of lumber from the ground are eliminated. These elements are not taught or suggested in the cited prior references. In particular, neither McLeod et al. nor Dika teach (i) a storage area (ii) an arm moveable in the way now defined and (iii) any method steps relating to the use of a storage area or the ability to travel with stacks of lumber stored on the apparatus. Favorable reconsideration is respectfully requested.

Claim 26 is a new claim that has been added to define further patentable aspects of the present invention. In claim 26, an apparatus is defined wherein the conveyor assembly, which is carried on a chassis upstream of the stacking assembly, includes a frame, a pivotal connection for the frame to permit angular adjustment of the frame relative to the chassis, an extendible mast connected between the frame and the chassis to drive the



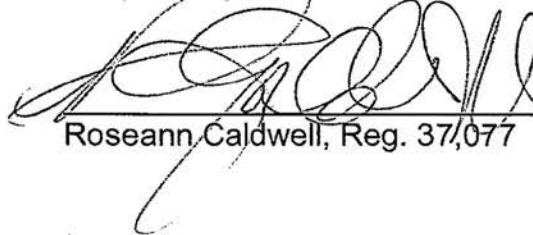
frame about the pivotal connection and the mast being operable to drive adjustment of the angle of the frame relative to the chassis to select the approach angle for the conveyor relative to the stacking assembly. The ability to drive the angular adjustment of the conveyor assembly allows the apparatus to continue efficient operation even on severely inclined terrain. Again, these elements are not taught or suggested in the cited prior references. In particular, neither McLeod et al. nor Dika teach a conveyor assembly upstream of a stacking assembly that includes a driver that can be driven to pivot the frame of the conveyor assembly relative to the chassis of the apparatus. While McLeod teaches that various components of the stacking assembly and the picking assembly can be pivoted, it does not teach or suggest the function, or any component for achieving, angular adjustment of the frame of the conveyor assembly upstream of the stacking assembly to adjust the approach angle of the conveyor relative to the unscrambling hopper. Favorable consideration is respectfully requested.

Claim 26 is a new claim that has been added to define further patentable aspects of the present invention, wherein the unscrambling hopper includes an adjustable front panel positioned adjacent a front wall of the hopper in an open space defined between the hopper's front wall and back wall, the adjustable front panel being moveable towards and away from the front wall to adjust the length of the open space and an adjustable back panel positioned adjacent the back wall in the open space and moveable towards and away from the back wall to adjust the length of the open space. These features allow the apparatus to be used with lumber of various lengths while avoiding the problems encountered when shorter lumber lengths are sought to be handled in a hopper of fixed internal length. These elements are not taught or suggested in the cited prior references. In particular, neither McLeod et al. nor Dika teach an unscrambling hopper with any adjustable wall panels. Again, favorable consideration is requested.

**Conclusions**

The claims are believed to be in a condition for allowance and such allowance is respectfully requested.

Respectfully submitted,

  
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